

WHAT IS CLAIMED IS:

99/868  
1. A wire harness mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted component or a vehicle main body, wherein the wire harness consists of two or more sub wire harnesses produced separately, the sub wire harnesses being arranged on the wire harness holding portion and collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness.

2. The wire harness mounting method according to Claim 1, wherein ~~the~~ two or more sub harnesses include a common base sub harness consisting of a collection of circuits common to a plurality of vehicle types or a plurality of specifications of a single vehicle type and option sub harnesses each consisting of a collection of at least one circuit for a specific vehicle type or certain specifications, the sub harnesses being appropriately combined in accordance with the vehicle type or specifications and arranged on the wire harness holding portion.

3. The wire harness mounting method according to Claim 1, wherein the arrangement of the two or more sub wire harnesses on the wire harness holding portion is conducted in parallel with the assembly of the vehicle in accordance with information on vehicle specifications of the vehicle assembly line.

4. A wire harness mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted

component, wherein the wire harness consists of two or more sub wire harnesses produced separately, and wherein the vehicle-mounted component is arranged on a wiring table for assembling the sub wire harnesses into a wire harness, the two or more sub harnesses being arranged on the wire harness holding portion of the vehicle-mounted component and on the wiring table, the two or more sub harnesses arranged being collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness to the vehicle-mounted component.

5. The wire harness mounting method according to Claim 4, wherein the two or more sub harnesses include a common base sub harness consisting of a collection of circuits common to a plurality of vehicle types or a plurality of specifications of a single vehicle type and option sub harnesses each consisting of a collection of at least one circuit for a specific vehicle type or certain specifications, the sub harnesses being appropriately combined in accordance with the vehicle type or specifications and arranged on the wire harness holding portion and on the wiring table.

6. The wire harness mounting method according to Claim 4, wherein the arrangement of the two or more sub wire harnesses on the wire harness holding portion and the wiring table is conducted in parallel with the assembly of the vehicle in accordance with information on vehicle specifications of the vehicle assembly line.

7. The wire harness mounting method according to Claim 1,

wherein the vehicle-mounted component is an air conditioning duct or a reinforcing bar in an instrument panel.

8. A harness mounting portion structure for a wire harness mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted component or a vehicle main body, wherein the wire harness consists of two or more sub wire harnesses produced separately, the sub wire harnesses being arranged on the wire harness holding portion and collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness,

wherein the wire harness holding portion has a cutout for effecting the positioning of a branch line portion of a sub wire harness, and wherein a guide portion extending in the branch line portion lead-out direction is provided at the edge of the cutout.

9. A harness mounting portion structure for a wire harness mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted component or a vehicle main body, wherein the wire harness consists of two or more sub wire harnesses produced separately, the sub wire harnesses being arranged on the wire harness holding portion and collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness,

wherein the wire harness holding portion has two or more cutouts for effecting the positioning of branch line portions of the sub

wire harnesses, wherein different colors are given to the edges of the cutouts, and wherein tapes of different colors respectively corresponding to those of the cutout edges are attached to the branch line portions of the sub wire harnesses.

10. A harness mounting portion structure for a wire harness mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted component or a vehicle main body, wherein the wire harness consists of two or more sub wire harnesses produced separately, the sub wire harnesses being arranged on the wire harness holding portion and collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness,

wherein the wire harness holding portion has two or more cutouts for effecting the positioning of branch line portions of the sub wire harnesses, wherein different colors are given to the edges of the cutouts, and wherein different colors respectively corresponding to those of the cutout edges are given to connectors mounted to the forward ends of the branch line portions of the sub wire harnesses.

11. A harness mounting portion structure for a wire harness mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted component or a vehicle main body, wherein the wire harness consists of two or more sub wire harnesses produced separately, the sub wire harnesses being arranged

on the wire harness holding portion and collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness,

wherein connector temporary fixing jigs for temporarily fixing connectors mounted to the forward ends of branch line portions of the sub wire harnesses and/or branching-off portion temporary fixing jigs for temporarily fixing branching-off portions of the branch line portions of the sub wire harnesses are provided on the vehicle-mounted component or an assembly table thereof or on the vehicle main body or an assembly table thereof.

12. A harness mounting portion structure for a wire harness mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted component or a vehicle main body, wherein the wire harness consists of two or more sub wire harnesses produced separately, the sub wire harnesses being arranged on the wire harness holding portion and collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness,

wherein exterior component temporary fixing jigs for temporarily fixing exterior components of the wire harness are provided on the vehicle-mounted component or an assembly table thereof or on the vehicle main body or an assembly table thereof.

13. A harness mounting portion structure for a wire harness mounting method for mounting a wire harness to a wire harness holding

portion provided on a vehicle-mounted component or a vehicle main body, wherein the wire harness consists of two or more sub wire harnesses produced separately, the sub wire harnesses being arranged on the wire harness holding portion and collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness,

wherein an exterior component mounting instruction table providing instructions on the mounting of exterior components on the wire harness is provided on the vehicle-mounted component or an assembly table thereof or on the vehicle main body or an assembly table thereof.

14. A harness mounting portion structure for a wire harness mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted component or a vehicle main body, wherein the wire harness consists of two or more sub wire harnesses produced separately, the sub wire harnesses being arranged on the wire harness holding portion and collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness,

wherein a press contact connector for connecting wires of the wire harness is held on the wire harness holding portion, on the vehicle-mounted component or an assembly table thereof, or on the vehicle main body or an assembly table thereof.

15. A harness mounting portion structure for a wire harness

mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted component or a vehicle main body, wherein the wire harness consists of two or more sub wire harnesses produced separately, the sub wire harnesses being arranged on the wire harness holding portion and collectively held by the wire harness holding portion to thereby complete the mounting of the wire harness,

wherein a welding machine for connecting wires of the wire harness by welding is provided on a vehicle-mounted component assembly table or in the vicinity thereof, or on a vehicle main body assembly table or in the vicinity thereof.

16. A wire harness mounting vehicle component module, wherein a wire harness holding portion to which a wire harness trunk portion is to be mounted is provided on at least one of the vehicle components constituting the module, and wherein temporary locking means which temporarily lock, of connectors mounted to the forward ends of branch lines of the wire harness, those connectors having no associated connection elements at the stage where the module is assembled, are provided on the outer surface of other vehicle components constituting the module or the vehicle component to which the wire harness holding portion is mounted, the positions of the temporary locking means being determined such that, when such connectors are temporarily connected, a prescribed branch line length is ensured.

17. The wire harness mounting vehicle component module

according to Claim 16, wherein, on the outer surface of a vehicle component, there are provided branch line temporary holding means for effecting detour-wiring of the branch lines with the connectors having no associated connection elements or for controlling the wiring paths for such branch lines.

18. The wire harness mounting vehicle component module according to Claim 16, wherein marks indicating connector temporary locking positions or branch line wiring paths are provided in the vicinity of the temporary locking means or the branch line temporary holding means on the outer surface of a vehicle component.

19. The wire harness mounting vehicle component module according to Claim 16, wherein the wire harness is divided into a plurality of sub wire harnesses, each of which is directly mounted to the vehicle component.

20. A wire harness mounting method for mounting a wire harness to a wire harness holding portion provided on a vehicle-mounted component, wherein the wire harness is produced by separately preparing a common base sub harness consisting of a collection of circuits for use common to a plurality of vehicle types or a plurality of specifications of a single vehicle type and at least two option sub harnesses each consisting of a collection of circuits for a specific vehicle type or certain specifications, and wherein, when appropriately combining these sub harnesses in accordance with the vehicle type or specifications and mounting them to the wire harness



holding portion, the option sub harnesses are first mounted and the common base sub harness is finally mounted.

21. The wire harness mounting method according to Claim 20, wherein the wire harness holding portion has a substantially V-shaped sectional configuration.

22. The wire harness mounting method according to Claim 20, wherein the vehicle-mounted component is an air conditioning duct or a reinforcing bar in an instrument panel.

23. A wire harness mounting type vehicle component, wherein a trunk line holding portion for holding a trunk line of a wire harness is formed integrally with a vehicle component, wherein a branching-off guide is integrally formed at a position where a branch line branches off from the wire harness trunk line held by the trunk line holding portion, and wherein a branch line protecting member on which the wire harness branch line extends is integrally formed at the forward end of the branching-off guide.

24. A wire harness assembly method for assembling a wire harness by selectively combining a plurality of sub harnesses in accordance with vehicle specifications, wherein every sub harness is provided with a specific connector to be fitted into an electrical connection box prepared for the purpose, and wherein, when assembling a wire harness by combining the plurality of sub harnesses, the specific connector of each sub harness is fitted into a predetermined portion of the electrical connection box.

25. The wire harness assembly method according to Claim 24, wherein fitting portions into which specific connectors of a sub harness are to be fitted are aligned in the electrical connection box.

26. A wire harness inspecting method, wherein after a wire harness has been assembled by a wire harness assembly method for assembling a wire harness by selectively combining a plurality of sub harnesses in accordance with vehicle specifications, wherein every sub harness is provided with a specific connector to be fitted into an electrical connection box prepared for the purpose, and wherein, when assembling a wire harness by combining the plurality of sub harnesses, the specific connector of each sub harness is fitted into a predetermined portion of the electrical connection box, it is checked whether the combination of sub harnesses is in conformity with the vehicle specifications or not according to the presence/absence of a specific connector fitted into the electrical connection box.

27. The wire harness inspecting method according to Claim 26, wherein identifying means, such as marks or bar-codes, for identifying the sub harnesses are provided on the surfaces of the specific connectors of the sub harnesses, inspection being conducted by reading the identifying means of the specific connector fitted into the electrical connection box.

28. The wire harness inspecting method according to Claim

26, wherein the presence/absence of a specific connector fitted into the electrical connection box is checked by an optical means for transmission, interception, reflection, etc. of light.

29. The wire harness inspecting method according to Claim 26, wherein the presence/absence of a specific connector fitted into the electrical connection box is checked electrically.

30. The wire harness inspecting method according to Claim 26, wherein different colors are given to the specific connectors of the sub harnesses, and inspection is executed by identifying the color of the specific connector fitted into the electrical connection box.

31. A wire harness mounting type vehicle component, wherein a wire harness holding portion for holding a trunk line portion of a wire harness is formed on a vehicle component, wherein a branching-off guide is integrally formed at a position where a branch line branches off from the wire harness trunk line held by the wire harness holding portion, and wherein a branch line protecting member on which the wire harness branch line extends is integrally formed at the forward end of the branching-off guide.

32. A wire harness mounting type vehicle component, wherein a wire harness holding portion for protecting a trunk line portion of a wire harness is formed on a vehicle component, and wherein a movement restraining means for restraining the wire harness in its movement is provided on the wire harness holding portion.

33. A wire harness mounting type vehicle component, wherein a wire harness holding portion for holding a trunk line of a wire harness is formed on a vehicle component, wherein a branching-off guide is integrally formed at a position where a branch line branches off from the wire harness trunk line held by the trunk line holding portion, wherein a branch line protecting member on which the wire harness branch line extends is integrally formed at the forward end of the branching-off guide, and wherein a movement restraining means for restraining the wire harness in its movement is provided on the wire harness holding portion.

34. The wire harness mounting type vehicle component according to Claim 32, wherein the movement restraining means consists of a large number of bar-like protrusions protruding from the bottom portion of the wire harness holding portion.

35. The wire harness mounting type vehicle component according to Claim 32, wherein the movement restraining means consists of protruding members which alternately protrude from the inner walls of the side walls of the wire harness holding portion and whose forward ends are pressed against the wire harness.

36. The wire harness mounting type vehicle component according to Claim 32, wherein the movement restraining means consists of elastic arm members protruding from the inner sides of the side walls of the wire harness holding portion and adapted to press down the wire harness in the wire harness holding portion.

37. The wire harness mounting type vehicle component according to Claim 32, wherein the movement restraining means consists of a large number of elastic protrusions protruding from the inner surface of a cover to be placed on the wire harness holding portion.

38. The wire harness mounting type vehicle component according to Claim 32, wherein the movement restraining means consists of an elastic presser member formed in a cover to be placed on the wire harness holding portion and adapted to press down the wire harness in the wire harness holding portion.

39. The wire harness mounting type vehicle component according to Claim 32, wherein the movement restraining means consists of a wire harness fixing strap formed integrally with the wire harness holding portion.